





```
Yang, Shu-Ping
Quirk, Stephen
Kimberly-Clark Worldwide, Inc.
```

<120> Anti-Chrondrosarcoma Compounds

```
<130> 1443.064US1

<140> 10/601,059

<141> 2003-06-20

<150> US 10/335,207

<151> 2002-12-30
```

<150> US 10/219,329 <151> 2002-08-15

<150> PCT/US02/26319 <151> 2002-08-15

<150> US 10/153,185 <151> 2002-05-21

<150> US 10/032,376 <151> 2001-12-21

<150> US 60/312,726 <151> 2001-08-16

<160> 21

<170> FastSEQ for Windows Version 4.0

<210> 1 <211> 8 <212> PRT <213> Homo sapiens <400> 1 Pro Arg Cys Gly Val Pro Asp Val

<210> 2 <211> 44 <212> PRT <213> Homo sapiens

<210> 3 <211> 50 <212> PRT <213> Homo sapiens

```
CCDY
```

```
<400> 3
Met Gln Ser Phe Phe Gly Leu Glu Val Thr Gly Lys Leu Asp Asp Asn
                                    10
Thr Leu Asp Val Met Lys Lys Pro Arg Cys Gly Val Pro Asp Val Gly
            20
                                                     30
                                25
Glu Tyr Asn Val Phe Pro Arg Thr Leu Lys Trp Ser Lys Met Asn Leu
                            40
Thr Tyr
    50
<210> 4
<211> 56
<212> PRT
<213> Homo sapiens
<400> 4
Met Gln Lys Phe Phe Gly Leu Pro Glu Thr Gly Lys Leu Ser Pro Arg
Val Met Glu Ile Met Gln Lys Pro Arg Cys Gly Val Pro Asp Val Ala
Glu Phe Ser Leu Met Pro Asn Ser Pro Lys Trp His Ser Arg Thr Val
Thr Tyr Arg Ile Val Ser Tyr Thr
    50
<210> 5
<211> 54
<212> PRT
<213> Homo sapiens
<400> 5
Met Gln Lys Phe Leu Gly Leu Glu Val Thr Gly Lys Leu Asp Ser Asp
Thr Leu Glu Val Met Arg Lys Pro Arg Cys Gly Val Pro Asp Val Gly
                                25
His Phe Arg Thr Phe Pro Gly Ile Pro Lys Trp Arg Lys Thr His Leu
       35
                            40
Thr Tyr Arg Ile Val Asn
    50
<210> 6
<211> 55
<212> PRT
<213> Homo sapiens
<400> 6
Met Gln Lys Phe Leu Gly Leu Glu Val Thr Gly Lys Leu Asp Thr Asp
                5
                                    10
Thr Leu Glu Val Met Arg Lys Pro Arg Cys Gly Val Pro Asp Val Gly
                                25
His Phe Ser Ser Phe Pro Gly Met Pro Lys Trp Arg Lys Thr His Leu
       35
                            40
Thr Tyr Arg Ile Val Asn Tyr
    50
<210> 7
<211> 54
<212> PRT
<213> Homo sapiens
```



```
<400> 7
Met Gln His Phe Leu Gly Leu Lys Val Thr Gly Gln Leu Asp Thr Ser
Thr Leu Glu Met Met His Ala Pro Arg Cys Gly Val Pro Asp Val His
His Phe Arg Glu Met Pro Gly Gly Pro Val Trp Arg Lys His Tyr Ile
Thr Tyr Arg Ile Asn Asn
    50
<210> 8
<211> 47
<212> PRT
<213> Homo sapiens
<400> 8
Leu Gln Lys Gln Leu Ser Leu Pro Glu Thr Gly Glu Leu Asp Ser Ala
Thr Leu Lys Ala Met Arg Thr Pro Arg Cys Gly Val Pro Asp Leu Gly
                                 25
Arg Phe Gln Thr Phe Glu Gly Asp Leu Lys Trp His His His Asn
<210> 9
<211> 54
<212> PRT
<213> Homo sapiens
<400> 9
Met Gln Glu Phe Phe Gly Leu Lys Val Thr Gly Lys Pro Asp Ala Glu
                                     10
Thr Leu Lys Val Met Lys Gln Pro Arg Cys Gly Val Pro Asp Val Ala
                                 25
                                                     30
Gln Phe Val Leu Thr Glu Gly Asn Pro Arg Trp Glu Gln Thr His Leu
                            40
Thr Tyr Arg Ile Glu Asn
    50
<210> 10
<211> 55
<212> PRT
<213> Homo sapiens
<400> 10
Met Gln Arg Phe Phe Gly Leu Asn Val Thr Gly Lys Pro Asn Glu Glu
1
Thr Leu Asp Met Met Lys Lys Pro Arg Cys Gly Val Pro Asp Ser Gly
                                 25
Gly Phe Met Leu Thr Pro Gly Asn Pro Lys Trp Glu Arg Thr Asn Leu
Thr Tyr Arg Ile Arg Asn Tyr
    50
<210> 11
<211> 19
<212> PRT
<213> Homo sapiens
Pro Arg Cys Gly Asn Pro Asp Val Ala Asn Tyr Asn Phe Phe Pro Arg
Lys Pro Lys
```



```
<210> 12
<211> 9
<212> PRT
<213> Homo sapiens
<400> 12
Pro Arg Cys Gly Asn Pro Asp Val Ala
<210> 13
<211> 10
<212> PRT
<213> Homo sapiens
<400> 13
Asn Tyr Asn Phe Phe Pro Arg Lys Pro Lys
<210> 14
<211> 660
<212> PRT
<213> Homo sapiens
<400> 14
Met Glu Ala Leu Met Ala Arg Gly Ala Leu Thr Gly Pro Leu Arg Ala
                                    10
Leu Cys Leu Leu Gly Cys Leu Leu Ser His Ala Ala Ala Pro Ser
                                25
Pro Ile Ile Lys Phe Pro Gly Asp Val Ala Pro Lys Thr Asp Lys Glu
                            40
                                                 45
Leu Ala Val Gln Tyr Leu Asn Thr Phe Tyr Gly Cys Pro Lys Glu Ser
                        55
Cys Asn Leu Phe Val Leu Lys Asp Thr Leu Lys Lys Met Gln Lys Phe
                    70
                                        75
Phe Gly Leu Pro Gln Thr Gly Asp Leu Asp Gln Asn Thr Ile Glu Thr
                8.5
                                    90
Met Arg Lys Pro Arg Cys Gly Asn Pro Asp Val Ala Asn Tyr Asn Phe
            100
                                105
                                                    110
Phe Pro Arg Lys Pro Lys Trp Asp Lys Asn Gln Ile Thr Tyr Arg Ile
        115
                            120
                                                125
Ile Gly Tyr Thr Pro Asp Leu Asp Pro Glu Thr Val Asp Asp Ala Phe
                        135
                                            140
Ala Arg Ala Phe Gln Val Trp Ser Asp Val Thr Pro Leu Arg Phe Ser
                    150
                                        155
Arg Ile His Asp Gly Glu Ala Asp Ile Met Ile Asn Phe Gly Arg Trp
                165
                                    170
Glu His Gly Asp Gly Tyr Pro Phe Asp Gly Lys Asp Gly Leu Leu Ala
           180
                                                    190
                                185
His Ala Phe Ala Pro Gly Thr Gly Val Gly Gly Asp Ser His Phe Asp
        195
                            200
                                                205
Asp Asp Glu Leu Trp Thr Leu Gly Glu Gly Gln Val Val Arg Val Lys
                        215
                                            220
Tyr Gly Asn Ala Asp Gly Glu Tyr Cys Lys Phe Pro Phe Leu Phe Asn
                    230
                                        235
Gly Lys Glu Tyr Asn Ser Cys Thr Asp Thr Gly Arg Ser Asp Gly Phe
               245
                                    250
Leu Trp Cys Ser Thr Thr Tyr Asn Phe Glu Lys Asp Gly Lys Tyr Gly
                               265
                                                    270
Phe Cys Pro His Glu Ala Leu Phe Thr Met Gly Gly Asn Ala Glu Gly
                            280
```



```
Gln Pro Cys Lys Phe Pro Phe Arg Phe Gln Gly Thr Ser Tyr Asp Ser
                        295
Cys Thr Thr Glu Gly Arg Thr Asp Gly Tyr Arg Trp Cys Gly Thr Thr
                    310
                                        315
Glu Asp Tyr Asp Arg Asp Lys Lys Tyr Gly Phe Cys Pro Glu Thr Ala
                325
                                    330
Met Ser Thr Val Gly Gly Asn Ser Glu Gly Ala Pro Cys Val Phe Pro
                                345
Phe Thr Phe Leu Gly Asn Lys Tyr Glu Ser Cys Thr Ser Ala Gly Arg
                            360
Ser Asp Gly Lys Met Trp Cys Ala Thr Thr Ala Asn Tyr Asp Asp Asp
                        375
Arg Lys Trp Gly Phe Cys Pro Asp Gln Gly Tyr Ser Leu Phe Leu Val
                    390
                                        395
Ala Ala His Glu Phe Gly His Ala Met Gly Leu Glu His Ser Gln Asp
                405
                                    410
Pro Gly Ala Leu Met Ala Pro Ile Tyr Thr Tyr Thr Lys Asn Phe Arg
            420
                                425
Leu Ser Gln Asp Asp Ile Lys Gly Ile Gln Glu Leu Tyr Gly Ala Ser
                            440
Pro Asp Ile Asp Leu Gly Thr Gly Pro Thr Pro Thr Leu Gly Pro Val
                        455
Thr Pro Glu Ile Cys Lys Gln Asp Ile Val Phe Asp Gly Ile Ala Gln
                   470
                                        475
Ile Arg Gly Glu Ile Phe Phe Lys Asp Arg Phe Ile Trp Arg Thr
                485
                                   490
Val Thr Pro Arg Asp Lys Pro Met Gly Pro Leu Leu Val Ala Thr Phe
                                505
Trp Pro Glu Leu Pro Glu Lys Ile Asp Ala Val Tyr Glu Ala Pro Gln
                           520
Glu Glu Lys Ala Val Phe Phe Ala Gly Asn Glu Tyr Trp Ile Tyr Ser
                        535
                                            540
Ala Ser Thr Leu Glu Arg Gly Tyr Pro Lys Pro Leu Thr Ser Leu Gly
                   550
                                        555
Leu Pro Pro Asp Val Gln Arg Val Asp Ala Ala Phe Asn Trp Ser Lys
                565
                                    570
Asn Lys Lys Thr Tyr Ile Phe Ala Gly Asp Lys Phe Trp Arg Tyr Asn
                                585
                                                   590
Glu Val Lys Lys Met Asp Pro Gly Phe Pro Lys Leu Ile Ala Asp
        595
                           600
                                                605
Ala Trp Asn Ala Ile Pro Asp Asn Leu Asp Ala Val Val Asp Leu Gln
                        615
                                            620
Gly Gly Gly His Ser Tyr Phe Phe Lys Gly Ala Tyr Tyr Leu Lys Leu
                    630
                                        635
Glu Asn Gln Ser Leu Lys Ser Val Lys Phe Gly Ser Ile Lys Ser Asp
Trp Leu Gly Cys
            660
```

<210> 15

<211> 43

<212> PRT

<213> Homo sapiens

<400> 15

 Met
 Gln
 Lys
 Phe
 Phe
 Gly
 Leu
 Pro
 Gln
 Thr
 Gly
 Asp
 Leu
 Asp
 Gln
 Asn

 1
 5
 10
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 15
 16
 15
 15
 16
 15
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16
 16



```
<210> 16
<211> 43
<212> PRT
<213> Homo sapiens
<400> 16
Leu Gln Lys Gln Leu Ser Leu Pro Glu Thr Gly Glu Leu Asp Ser Ala
                 5
                                    10
Thr Leu Lys Ala Met Arg Thr Pro Arg Cys Gly Val Pro Asp Leu Gly
                                 25
Arg Phe Gln Thr Phe Glu Gly Asp Leu Lys Trp
<210> 17
<211> 43
<212> PRT
<213> Homo sapiens
<400> 17
Met Gln Glu Phe Phe Gly Leu Lys Val Thr Gly Lys Pro Asp Ala Glu
Thr Leu Lys Val Met Lys Gln Pro Arg Cys Gly Val Pro Asp Val Ala
Gln Phe Val Leu Thr Glu Gly Asn Pro Arg Trp
<210> 18
<211> 35
<212> PRT
<213> Artificial Sequence
<220>
<223> A synthetic matrix metalloproteinase
<220>
<221> SITE
<222> 2
<223> Xaa = glutamine or glutamic acid
<220>
<221> SITE
<222> 5
<223> Xaa = aspartic acid or glutamic acid
<220>
<221> SITE
<222> 8
<223> Xaa = glutamine or serine
<220>
<221> SITE
<222> 9
<223> Xaa = asparagine or alanine
<220>
<221> SITE
<222> 11
<223> Xaa = isoleucine or leucine
```



```
<220>
<221> SITE
<222> (12)...(12)
<223> Xaa = glutamic acid or lysine
<220>
<221> SITE
<222> (13)...(13)
<223> Xaa = threonine or alanine
<220>
<221> SITE
<222> (16)...(16)
<223> Xaa = lysine or threonine
<220>
<221> SITE
<222> (21)...(21)
<223> Xaa = valine or asparagine
<220>
<221> SITE
<222> (24)...(24)
<223> Xaa = valine or leucine
<220>
<221> SITE
<222> (25)...(25)
<223> Xaa = alanine or glycine
<220>
<221> SITE
<222> (26)...(26)
<223> Xaa = asparagine or arginine
<220>
<221> SITE
<222> (27)...(27)
<223> Xaa = tyrosine or phenylalanine
<220>
<221> SITE
<222> (28)...(28)
<223> Xaa = asparagine or glutamine
<220>
<221> SITE
<222> (29)...(29)
<223> Xaa = phenylalanine or threonine
<220>
<221> SITE
<222> (31)...(31)
<223> Xaa = proline or glutamic acid
<220>
<221> SITE
<222> (32)...(32)
<223> Xaa = arginine or glycine
```

```
COPY
```

```
<220>
<221> SITE
<222> (33)...(33)
<223> Xaa = lysine or aspartic acid
<220>
<221> SITE
<222> (34)...(34)
<223> Xaa = proline or leucine
<400> 18
Pro Xaa Thr Gly Xaa Leu Asp Xaa Xaa Thr Xaa Xaa Xaa Met Arg Xaa
 1
                                     10
Pro Arg Cys Gly Xaa Pro Asp Xaa Xaa Xaa Xaa Xaa Phe Xaa Xaa
                                 25
Xaa Xaa Lys
        35
<210> 19
<400> 19
 000
<210> 20
<400> 20
 000
<210> 21
<211> 35
<212> PRT
<213> Artificial Sequence
<220>
<223> A synthetic peptide
<220>
<221> SITE
<222> (2)...(2)
<223> Xaa = glutamine or glutamic acid
<220>
<221> SITE
<222> (5)...(5)
<223> Xaa = aspartic acid or glutamic acid
<220>
<221> SITE
<222> (8)...(8)
<223> Xaa = glutamine or serine
<220>
<221> SITE
<222> (9)...(9)
<223> Xaa = asparagine or alanine
<220>
<221> SITE
<222> (11)...(11)
<223> Xaa = isoleucine or leucine
```

```
<220>
<221> SITE
<222> (12)...(12)
<223> Xaa = glutamic acid or lysine
<220>
<221> SITE
<222> (13)...(13)
<223> Xaa = threonine or alanine
<220>
<221> SITE
<222> (16)...(16)
<223> Xaa = lysine or threonine
<220>
<221> SITE
<222> 17, 20, 22
<223> Xaa = any a polar amino acid
<220>
<221> SITE
<222> 18
<223> Xaa= any basic amino acid
<220>
<221> SITE
<222> 19
<223> Xaa = any cysteine-like amino acid
<220>
<221> SITE
<222> 21
<223> Xaa = any polar or aliphatic amino acid
<220>
<221> SITE
<222> 23
<223> Xaa = any acidic amino acid
<220>
<221> SITE
<222> (24)...(24)
<223> Xaa = any aliphatic or polar amino acid
<220>
<221> SITE
<222> (25)...(25)
<223> Xaa = any aliphatic, apolar or basic amino acid
<220>
<221> SITE
<222> (26)...(26)
<223> Xaa = any polar, acidic, basic or apolar amino
      acid
<220>
<221> SITE
<222> (27)...(27)
<223> Xaa = any polar or aromatic amino acid
```

COA



```
<220>
<221> SITE
<222> (28)...(28)
<223> Xaa = any polar, basic, aliphatic or apolar amino acid
<220>
<221> SITE
<222> (29)...(29)
<223> Xaa = any aromatic, aliphatic, polar or acid amino acid
<220>
<221> SITE
<222> (30)...(30)
<223> Xaa = any aromatic, apolar or polar amino acid
<220>
<221> SITE
<222> (31)...(31)
<223> Xaa = any apolar or acidic amino acid
<220>
<221> SITE
<222> (32)...(32)
<223> Xaa = any basic, polar, or apolar amino acid
<220>
<221> SITE
<222> (33)...(33)
<223> Xaa = any basic, polar, aliphatic, apolar or acidic amino acid
<220>
<221> SITE
<222> (34)...(34)
<223> Xaa = any apolar or aliphatic amino acid
<220>
<221> SITE
<222> (35)...(35)
<223> Xaa = any basic or aliphatic amino acid
<400> 21
Pro Xaa Thr Gly Xaa Leu Asp Xaa Xaa Thr Xaa Xaa Xaa Met Arg Xaa
1
Xaa Xaa Xaa
       35
```

DEC 1 5 2003

Applicant: Shu-Ping Yang et al.
Serial No.: 10/601,059
Filed: June 20, 2003 1443.064US1 Docket:

Anti-Chrondrosarcoma Compounds Title:

COMPUTER READABLE FORM:

Medium Type: Dis

Computer: IBN

Operating System: Wi

Software: Fas Diskette IBM compatible

Windows FastSEQ Version 4.0

December 8, 2003 Date Recorded:

> DO NOT BEND OR FOLD AVOID EXPOSURE TO ALL MAGNETIC FIELDS